WHAT IS CLAIMED IS:

1. An information processing apparatus having a processor, comprising:

power monitoring means for monitoring power consumed by said information processing apparatus, said power monitoring means further outputting a power limit request demanding a limit to said power when said power being monitored exceeds a predetermined threshold;

first setting means for setting a first control for limiting an availability factor of said processor as a limit to said power when said power monitoring means outputs said power limit request;

second setting means for setting a second control for limiting said availability factor of said processor as a limit to said power when said power monitoring means outputs said power limit request;

first controlling means for executing said first control set by said first setting means; and

second controlling means for executing said second control set by said second setting means.

2. An information processing apparatus according to claim 1, wherein said first controlling means executes said first control at the same time that said second controlling means executes said second control.

3. An information processing apparatus according to claim 1, wherein said first controlling means starts said first control at a first time of day upon elapse of a first time period following the setting of said first control by said first setting means; and

wherein said second controlling means starts said second control at a second time of day which is earlier than said first time of day.

4. An information processing apparatus according to claim 3, wherein said second setting means sets cancellation of said second control by said second controlling means at a third time of day which is later than said second time of day and earlier than said first time of day; and

wherein said second controlling means cancels said second control the moment said second setting means sets cancellation of said second control.

5. An information processing apparatus according to claim 4, wherein, if said power limit request is not output by said power monitoring means while said second control is being executed by said second controlling means, then said first setting means sets cancellation of said first control by said first controlling means at a point in time earlier than said first time of day; and if

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said power limit request is output by said power monitoring means, then said first setting means sets cancellation of said first control by said first controlling means at a fourth time of day upon elapse of a second time period following said first time of day; and

wherein said first controlling means cancels said first control the moment said first setting means sets cancellation of said first control.

6. An information processing apparatus according to claim 5, wherein said second time period is set based on said first time period and on a duty rate specified for a power supply unit which supplies power to said information processing apparatus.

7. An information processing apparatus according to claim 6, wherein, if said power limit request is output by said power monitoring means, then said first setting means sets said first control for said first controlling means and outputs an execution request requesting said second setting means to execute said second control; and

wherein said second setting means sets said second control for said second controlling means, assuming as said second time of day a point in time at which said

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execution request output by said first setting means is detected.

8. An information processing apparatus according to claim 7, wherein said first setting means outputs a cancellation request requesting said second setting means to cancel said second control at a predetermined point in time which is earlier than said first time of day; and

wherein said second setting means sets cancellation of said second control for said second controlling means, assuming as said third time of day a point in time at which said cancellation request output by said first setting means is detected.

9. An information processing apparatus according to claim 8, wherein said second setting means sets said second control for said second controlling means, before outputting response information to said first setting means signaling the latter that said second control has been set.

10. An information processing apparatus according to claim 9, wherein, if said response information to be output by said second setting means is not detected, then said first setting means outputs said cancellation request to said second setting means, and sets cancellation of said first control for said first

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controlling means at said fourth time of day regardless of said power limit request being output or not output by said power monitoring means.

11. An information processing apparatus according to claim 1, wherein said first control denotes throttling control.

12. An information processing apparatus according to claim 1, wherein said second control denotes throttling control.

13. An information processing apparatus according to claim 1, wherein said second control denotes control by a thermal control circuit.

14. An information processing apparatus according to claim 1, wherein said second control denotes multistage voltage scaling control.

15. An information processing method for use with an information processing apparatus having a processor, said information processing method comprising the steps of:

monitoring power consumed by said information processing apparatus, said power monitoring step further generating a power limit request demanding a limit to said power when said power being monitored exceeds a predetermined threshold;

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firstly setting a first control for limiting an availability factor of said processor as a limit to said power when said power monitoring step generates said power limit request;

secondly setting a second control for limiting said availability factor of said processor as a limit to said power when said power monitoring step generates said power limit request;

firstly controlling execution of said first control set in said first setting step; and

secondly controlling execution of said second control set in said second setting step.

16. A program for use with an information processing apparatus which comprises:

a processor;

a power monitoring unit for monitoring power consumed by said information processing apparatus, said power monitoring unit further outputting a power limit request demanding a limit to said power when said power being monitored exceeds a predetermined threshold;

a first controlling mechanism for executing a first control for limiting an availability factor of said processor as a limit to said power;

a second controlling mechanism for executing a

second control for limiting said availability factor of said processor as a limit to said power; and

a microcomputer for passing data to and from said first controlling mechanism via a first interface implemented as hardware and to and from said second controlling mechanism via a second interface implemented as software;

said program being executed by said microcomputer and comprising the steps of:

firstly setting said first control for said first controlling mechanism via said first interface when said power monitoring unit outputs said power limit request; and

secondly setting said second control for said second controlling mechanism via said second interface when said power monitoring unit outputs said power limit request.

17. A program according to claim 16, wherein said second interface is either an advanced configuration and power interface machine language or a basic input/output system;

wherein said second setting step involves signaling an execution request to said advanced configuration and power interface machine language or to said basic

input/output system using either a system control

interrupt or a system management interrupt, said

execution request requesting said second controlling

mechanism to execute said second control; and

wherein either said advanced configuration and

power interface machine language or said basic

input/output system sets said second control for said

second controlling mechanism upon receipt of said

execution request from said microcomputer.